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Determination of prolactin in the urine by the immunological method. Probl. endok. i gorm. 9 no.6:99-101 N-D '63.
(MIRA 17:11)

1. Iz kabineta endokrinologii laboratorii eksperimental'noy onkologii (zav. - prof. N.V. Lazarev) Instituta onkologii (dir. - prof. A.I. Serebrov) AMN SSSR i otdela mikrobiologii (zav. - prof. Ioffe) Instituta eksperimental'noy meditsiny (dir. - prof. D.A. Biryukov) AMN SSSR.

IVANTISHIN, M. N.

Ivantishin, M. N., Burkser, E. S. - Basic Data on Geochronology of the Ukrainian Pre-Cambrian.

The Sixth Session of the Committe for Determining the Absolute Age of Geologic Formations at the Department of Geologic-Geographical Sciences (OGGN) of the USSR Academy of Sciences at Sverdlovsk in May 1957.

Izv. Ak Nauk SSSR, Ser. Geol., No. 1, 1958, p. 115-117 author: Pekarskaya, T. B.

IVANTISHIN, M.M.

Pre-Cambrian endogenetic mineralization and its importance for solving metallogenic problems. Geol. zhur. 17 no.2:21-37 '57. (MLRA 10:11)
(Ore deposits)

IVANTISHIN, M.M. [Ivantyshyn, M.M.]; POLOVKO, N.I.

Sixth session of the commission on the determination of absolute age of geological formations. Geol. zhur. 17 no.3:96-98 '57. (MIRA 11:2)

(Geological time)

AYZENVERG, D.Ye., geolog; BALUKHOVSKIY, N.F., geolog; BARTOSHEVSKIY, V.I., geolog; BASS, Yu.B., geolog; VADIMOV, N.T., geolog; GLADKIY, V.Ya., geolog; DIDKOVSKIY, V.Ya., geolog; YERSHOV, V.A., geolog; ZHUKOV, G.V., geolog; ZAMORIY, P.K., geolog; IVANTISHIN, M.N., geolog; KAPTARENKO-CHERNOUSOVA, O.K., geolog; KLIMENKO, V.Ya., geolog; KLUSHIN, V.I., geolog; KLYUSHNIKOV, M.N., geolog; KRASHENINNIKOVA, O.V., geolog; KUTSYBA, A.M., geolog; LAPCHIK, F.Ye., geolog; LICHAK, I.L., geolog; MAKUKHINA, A.A., geolog; MATVIYENKO, Ye.M., geolog; MEDYNA, V.S., geolog; MOLYAVKO, G.I., geolog; NAYDIN, D.P., geolog; NOVIK, Ye.O., geolog; POLOVKO, I.K., geolog; RODIONOV, S.P., geolog; SEMENENKO, N.P., akademik, geolog; SERGEYEV, A.D., geolog; SIROSHTAN, R.I., geolog; SLAVIN, V.I., geolog; SUKHAREVICH, P.P., geolog; TKACHUK, L.G., geolog; USENKO, I.S., geolog; USTINOVSKIY, Yu.B., geolog; TSAROVSKIY, I.D., geolog; SHUL'GA, P.L., geolog; YURK, Yu.Yu., geolog; YAMNICHENKO, I.M., geolog; ANTROPOV, P.Ya., glavnyy redaktor; FILIPPOVA, B.S., red. izd-va; GUROVA, O.A., tekhn.red.

[Geology of the U.S.S.R.] Geologiia SSSR. Glav. red. P.IA.Antropov. Vol.5.[Ukrainian S.S.R., Moldavian S.S.R.] . . Ukrainskaia SSR. Moldavskaia SSR. Red. V.A. Ershov, N.P. Semenenko. Pt.1.[Geological description of the platform area] Geologicheskoe opisanie platformennoi chasti. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr. 1958. 1000 p. [___ Supplement] ___Prilozheniia.

(Continued on next card)

AYZENVERG, D.Ye.---(continued) Card 2.
3 fold.maps (in portfolio) (MIRA 12:1)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geologii i okhrany nedr. 2. Ukrainskoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedr SSSR i Institut geologicheskikh nauk Akademii nauk USSR (for all except Antropov, Filippova, Gurova). 3.Glavnyy geolog Ukrainskogo geologicheskogo upravleniya (for Yershov). 4. AN Ukrainskoy SSR (for Semenenko).
(Ukraine--Geology) (Moldavia--Geology)

[illegible], [illegible]; [illegible], Y.[illegible]; IVANTISHIN, M.N.

[redacted]

Determining the absolute age of clay slates and phyllites. Biul.Kom. (MIRA 12:11)
po opr. abs.vozr. geol.form. no.3:47-48 '58.
(Slate) (Phyllite)

IVANTYSHIN, M.M. [Ivantyshyn, M.M.], kand.geol.-min.nauk

Wind erosion of rocks. Nauka i zhyttia 8 no.8:22-24 Ag '58.
(MIRA 12:1)

(Rocks) (Erosion)

IVANTISHIN, M.N. [Ivantyshyn, M.M.]

Pre-Cambrian ore belts. Geol.zhur. 18 no.5:3-11 '58.
(MIRA 12:1)

(Geology)

IVANTISHIN, M.N.

3(5) SOV/7-59-6-14/17

AUTHORS: Baranov, V. I., Knorre, K. G.

TITLE: Chronicle. The VIII Session of the Commission for the Determination of the Absolute Age of Geological Formations (at the Otdeleniye Geologo-geograficheskikh nauk AN SSSR (Department of Geological-geographical Sciences AS USSR), May 18 - 22, 1959, Moscow)

PERIODICAL: Geokhimiya, 1959, Nr 6, pp 562 - 563 (USSR)

ABSTRACT: The 8th regular session of the (Commission on the Determination of the Absolute Age of Geological Formations) was held in Moscow from May 18 to May 22, 1959 at the Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy). A series of summarising reports was held on age determinations in the most important parts of the USSR, which are to be presented to the 21st International Geological Congress. The following reports are concerned:
A. V. Polkanov, E. K. Gerling: Problems of the absolute age of the Precambrian of the Baltic Shield.
A. P. Vinogradov, L. V. Komlev, A. I. Tugarinov: The absolute age of the Ukrainian crystalline shield.
F. P. Semenenko, Ye. S. Burkser, and M. N. Ivantishin: Age groups of the mineralization of the rocks of the Ukraine in their absolute age.

Card 1/4

A. P. Vinogradov, A. I. Tugarinov, K. G. Knorre, and Ye. V. Bibikova, V. V. Zhirova, S. I. Zykov: The age of the Precambrian rocks of the crystalline fundament of the Russian Platform.
I. Ye. Starik, A. Ya. Krylov, M. G. Ravich, Yu. I. Silin: The absolute age of the rocks of the eastern part of the Antarctic continent.
A. Ya. Krylov: The absolute age of the rocks of the Tsentral'nyy Tyan' Shan' and the employment of the argon method for metamorphous and sedimentary rocks.
G. D. Afanas'yev: Results of the geochrony formations of the Caucasus.
L. P. Ovchinnikov and M. A. Garris: Age of the geological formations of the Urals and the Priural'ye (Cis-Urals).
N. I. Poleva and G. A. Kurina, G. A. Kazakov: Absolute age determination of the sedimentary and volcanic formations.
L. P. Krasnyy and N. I. Poleva: Absolute age of the magmatic rocks of the (Soviet) Far East.

Card 2/4

L. V. Komlev: Absolute age of the granite intrusions of Kazakhstan.
The research work of a number of laboratories, MIAN, GEOKhI, LAGED, VSEGEI, ., UFAN, etc aroused great attention, especially a report of E. K. Gerling, Yu. A. Shukolyukov on the concentration of the isotope Ar^{38} in uranium minerals as well as the comprehensive research work carried out by the Vouraktnaya Laboratoriya Akademiya nauk Gruzinskaya SSR (Laboratory of Age Determination of the Academy of Sciences of the Gruzinskaya SSR) under the application of isotopic dilution and flame photometry. The determination of the age of sedimentary rocks was discussed: A. Ya. Krylov proved in his report how well radiogenic argon is conserved in destroyed products of rocks such as boulders, sands, sandstones, clays, and muds. A. I. Tugarinov and S. I. Zykov were the first to attempt to determine the absolute age of sedimentary carbonate formations according to isotopic composition of lead.

Card 3/4

IVANTISHIN, M.N. [Ivantyshyn, M.M.]; KUL'SKAYA, O.A. [Kul'ska, O.A.]

Methods of quantitative spectrum analysis and geochemical characteristics of lithium, rubidium, and cesium (Ukrainian crystalline shield). Geol.zhur. 19 no.1:8-25 '59.
(MIRA 12:2)

(Alkali metals) (Ukraine--Rocks, Crystalline and metamorphic)

IVANTISHIN, M. N., Doc Geolog-Mineralog Sci (diss) -- "Rare and dispersed elements in the granites and pegmatites of the Ukrainian crystalline shield". Kiev, 1960. 27 pp (Min Higher and Inter Spec Educ Ukr SSR, Kiev Order of Lenin State U im T. G. Shevchenko), 150 copies (KL, No 11, 1960, 130)

PLATONOV, A.N., inzh., otv. red.; POVARENNYKH, A.S., doktor geologo-min. nauk, prof., glav. red.; AGAFONOVA, T.N., kand. geol-min. nauk, dots., red.; BELEVTSEV, Ya.N., prof., red.; GAVRUSEVICH, B.A., kand. geol.-min.nauk, dots., red.; GLADKIY, B.N., inzh., red.; IVANTISHIN, M.N., doktor geol.-miner. nauk, red.; KHATUNTSEVA, A.Ya., kand. geol.-miner. nauk, red.; ZAVIRYUKHINA, V.N., red.; DAKHNO, Yu.M., tekhn. red.

[Annals of the Ukrainian Branch of the All-Union Mineralogical Society] Zapiski Ukrainskogo otdeleniia Vsesoiuznogo mineralogicheskogo obshchestva. Kiev, Izd-vo AN USSR, 1962. 184 p. (MIRA 17:3)

1. Akademiya nauk URSR, Kiev. Ukrainskoye otdeleniye Vsesoyuznogo mineralogicheskogo obshchestva. 2. Chlen-korrespondent AN Ukr.SSR (for Belentsev).

POVARENNYKH Aleksandr Sergeyevich; BURKSER, Ye.S., retsenzent; IVANTISHIN, M.N., doktor geol.-min. nauk, retsenzent; LITVIN, A.L., kand. geol.-min. nauk, otv. red.; GAVRUSEVICH, B.A., dots., red.; ZAVIRYUKHINA, V.N., red.; LISOVETS, A.M., tekhn. red.; REKES, M.A., tekhn. red.

[Hardness of minerals] Tverdost' mineralov. Kiev, Izd-vo AN USSR, 1963. 303 p. (MIRA 17:3)

1. Chlen-korrespondent AN Ukr. SSR (for Burkser).

SEMENENKO, M.P., akademik, otv. red.; POVARENNYKH, O.S., doktor geol. nauk, prof, zam. otv. red.; BURKSER, E.S., red.; IVANTISHIN, M.M.[Ivantyshyn, M.M.], doktor geol.-min. nauk, red.; TKACHUK, L.G.[Tkachuk, L.H.], doktor geol-min, nauk, prof., red.; SHNYUKOV, E.F., kand. geol.-min. nauk, red.; LISOVETS', O.M.[Lysovets', O.M.], tekhn. red.

[Geochemistry, mineralogy, and petrography; on the centenary of the birth of K.I.Vernadskii, First President of the Academy of Sciences of the Ukrainian S.S.R.] Pytannia geokhimii, mineralogii i petrografii; do 100-richchia z dnia narozhdennia pershoho prezydenta AN Ukrains'koi RSR akademika V.I.Vernads'koho. Kyiv, Vyd-vo AN URSR, 1963. 335 p. (MIRA 16:8)

1. Akademiya nauk URSR, Kiev. Instytut geologichnykh nauk. 2. Akademiya nauk Ukr.SSR (for Semenenko). 3. Chlen-korrespondent AN Ukr.SSR (for Burkser).
(Geochemistry) (Mineralogy) (Petrology)
(Vernadskii, Vladimir Ivanovich, 1863-1945)

POVARENNYKH, A.S., doktor geol.-miner. nauk, prof., otv. red.; AGAFONOVA, T.N., kand. geol.-miner. nauk, dots., red.; BELEVTSEV, Ya.N., prof., red.; GAVRUSEVICH, B.A., kand. geol.-miner. nauk, dots., red.; GLADKIY, V.N., inzh., red.; IVANTISHIN, M.N., doktor geol.-miner. nauk, red.; PLATONOV, A.N., inzh., red.; KHATUNTSEVA, A.Ya., kand. geol.-miner. nauk, red.; ZAVIRYUKHINA, V.N., red.izd-va; TURBANOVA, I.A., tekhn. red.

[Theoretical and genetic problems of mineralogy and geochemistry] Teoreticheskie i geneticheskie voprosy mineralogii i geokhimii. Kiev, Izd-vo AN USSR, 1963. 165 p. (MIRA 16:12)

1. Akademiya nauk URSR, Kiev. Ukrainskoye otdeleniye Vsesoyuznogo mineralogicheskogo obshchestva. 2. Chlen-korrespondent AN Ukr.SSR (for Belevtsev).
(Mineralogy) (Geochemistry)

IVANTISHIN, Mikhail Nikoaleyvich[Ivantyshyn, M.M.]; ZAYATS, Aelita Petrovna[Zaiets', A.P.]; KUTS, Vladimir Pavlovich; POVARENNYKH, O.S., prof., otv. red.; BYCHKOVA, R.I., red.; LUKASHENKO, T.Z., red.

[Accessory rare minerals and dispersed elements in metamorphic rocks of the Ukrainian crystalline shield] Aktsesorni ridkisni mineraly ta rozsiiani elementy v metamorfichnykh porodakh ukrains'koho krystalichnoho shchyta. Kyiv, Naukova dumka, 1965. 69 p. (MIRA 18:9)

MITSKEVICH, Boris Fedorovich [Mitskevych, B.F.]; IVANTISHIN, M.M.[Ivantyshyn, M.M.], doktor geol.-miner. nauk, otv. red.; MEL'NIK, G.F.[Mel'nyk, H.F.], red.

[Geochemical methods of prospecting and the conditions for their use in the Ukraine and in Moldavia] Geokhimichni metody rozshukiv ta umovy ikh zastosuvannia na Ukraini i v Moldavii. Kyiv, Naukova dumka, 1965. 127 p. (MIRA 18:9)

POVARENNYKH, A.S., doktor geol.-miner. nauk, prof., otv. red.; GAVRUSEVICH, B.A., kand. geol.-miner. nauk, dots., red.; IVANTISHIN, M.N., doktor geol.-miner. nauk, red.; LAZARENKO, Ye.K., prof., red.; LOGVINENKO, N.V., doktor geol.-miner. nauk, prof., red.; MITSKEVICH, B.F., kand. geol.-miner. nauk red.; PLATONOV, A.N., ml. nauchn. sotr., red.; SERDYUK, O.P., red.

[Morphology, properties, and genesis of minerals] Morfologiia, svoistva i genezis mineralov. Kiev, Naukova dumka, 1965. 186 p. (MIRA 18:5)

1. Vsesoyuznoye mineralogicheskoye obshchestvo, Ukrainskoye otdeleniye. 2. Chlen-korrespondent AN Ukr.SSR (for Lazarenko).

IVANTISHIN, Mikhail Nikolayevich [Ivantyshyn, M.M.]; SEMENENKO, M.P., akademik, otv.red.; MEL'NIK, G.F. [Mel'nyk, H.F.], red.izd-va; YEFIMOVA, M.I., tekhn.red.

[Acessory rare minerals and trace elements in granites and pegmatites of the Ukrainian Crystalline Shield] Aktsesorni ridkisni mineraly ta rozsiiani elementy v granitakh i pegmatitakh Ukrains'koho krystalichnoho shchyta. Kyiv, Vyd-vo Akad.nauk Ukrains'koi RSR, 1960. 242 p. (Akademiia nauk URSR, Kiev. Instytut geologichnykh nauk. Trudy, no.8) (MIRA 14:7)

1. AN USSR (for Semenenko).
(Dnieper Valley--Metals, Rare and minor)

IVANTISHIN, Mikhail Nikolayevich [Ivantyshyn, M.M.]; SEMENENKO, M.P., akademik, otv.red.; SIROSHTAN, R.I., kand.geol.-mineral nauk, red.vypuska; OVCHAROVA, Z.G. [Ovcharova, Z.H.], red.; KADASHEVICH, O.O., tekhn.red.

[Geochemical characteristics of rock-forming elements of Pre-Cambrian intrusive rocks in the Ukrainian Crystalline Shield] Geokhimichna kharakterystyka porodoutvoriuiuchykh elementiv dokembriis'kykh intruzyvnykh porid Ukrains'koho krystalichnoho shchyta. Kyiv, Vyd-vo Akad.nauk Ukrainskoi RSR, 1961. 34 p. (Akademiia nauk URSR, Kiev. Institut geologichnykh nauk. Trudy, no.13). (MIRA 14:12)

1. AN USSR (for Semenenko).
(Dnieper Valley--Rocks, Igenous) (Geochemical prospecting)

IVANTISHIN, M.N. [Ivantyshyn, M.M.]; YELISEYEV, V.K. [IElisieiev, V.K.]; MITSKEVICH, B.F. [Mitskevych, B.F.]

Using electronic computers in geochemical investigation. Dop. AN URSR no.5:624-627 '63. (MIRA 17:9)

1. Institut geologicheskikh nauk AN UkrSSR. Predstavleno akademikom AN UkrSSR N.P.Semenenko [Semenenko, M.P.].

SEMENENKO, N.P.; SUBBOTIN, S.I.; SOLLOGUB, V.B.; IVANTISHIN, M.N.; CHEKUNOV, A.V.; LADIYEVA, V.D.

Structure of the abyssal zones of the earth's crust in the Ukrainian Crystalline Shield. Sov. geol. 7 no.11:48-60 N '64. (MIRA 18:2)

1. Institut geofiziki AN UkrSSR.

IVANTISHIN, Mikhail Nikolayevich; GORNYY, Georgiy Yakovlevich; KUL'SKAYA, Ol'ga Adol'fovna; YELISEYEVA, Galina Dmitriyevna, Prinimali uchastiye: GAVRILOVA, S.F., inzh.-khimik; KAZANTSEVA, A.I., inzh.-khimik; LOGVINA, L.A., inzh.-khimik; USLONTSEVA, L.A., inzh.-khimik; GUDIMENKO, L.F., inzh.; NAZAREVICH, Ye.S., inzh.; SHKVARUK, R.N., inzh.; ORLOVA, L.A., inzh.; BASHMAKOVA, T.G., inzh.-geolog; BURKSER, Ye.S., otv. red.; MEL'NIK, A.F., red.

[Geochemistry and analytic chemistry of rare-earth elements. Pt.1. Accessory rare-earth minerals and elements of the cerium subgroup in the Ukrainian Crystalline Shield] Geokhimiia i analiticheskaia khimiia redkozemel'nykh elementov. Kiev, Naukova dumka. Pt.1. Aktsessornye redkozemel'nye mineraly i elementy tserievoi podgruppy ukrainskogo kristallicheskogo shchita. 1964. 164 p. (Akademiia nauk URSR. Instytut geologichnykh nauk. Trudy. Seriia petrografii, mineralogii i geokhimii, no.21). (MIRA 18:...)

1. Chlen-korrespondent AN UkrSSR (for Burkser).

POVARENNYKH, A.S., doktor geol.-miner. nauk, prof., otv. red.; AGAFONOVA, T.N., kand. geol.-miner. nauk, dots., red.; GAVRUSEVICH, B.A., kand. geol.-miner. nauk, dots., red.; GLADKIY, V.N., inzh., red.; IVANTISHIN, M.N., doktor geol.-miner. nauk, red.; LOGVINENKO, N.V., doktor geol.-miner. nauk, prof., red.; PLATONOV, A.N., inzh., red.; KHATUNTSEVA, A.Ya., kand. geol.-miner. nauk, red.; ZAVIRYUKHINA, V.N., red.

[Chemical composition and internal structure of minerals] Khimicheskii sostav i vnutrennee stroenie mineralov. Kiev, Naukova dumka, 1964. 216 p. (MIRA 18:1)

1. Vsesoyuznoye mineralogicheskoye obshchestvo. Ukrainskoye otdeleniye.

...-Rom.-Sov. Metalurgie si constr. ...

VINOGRADOV, Yu. N.; IVANTSEV, A. M., inzh.

Device for measuring the pressure of the prongs of a brush holder. Elek. i tepl. tiaga 6 no.9:25-27 S '62. (MIRA 15:10)

1. Rukovoditel' Ural'skogo otdeleniya Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta Ministerstva putey soobshcheniya (for Vinogradov).

(Electric railway motors—Equipment and supplies)
(Brushes, Electric)

IVANTSEV, N. V.

IVANTSEV, N. V. "Ulcers of the stomach and the duodenum and their surgical therapy" (According to the materials of the surgical section of the Ardatov rayon hospital of the Mordvinian ASSR during the past 30 years (1917-1947), Signed by N. I. (!) Ivantsev, Sbornik nauch. trudov. vrachey Mordov. ASSR, Saransk, 1948, p.76-99.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

IVANTSEV, N. V.

IVANTSEV, N. V. "The diagnostic significance of the Botello and Davis reactions in cancer", Sbornik nauch. trudov vrachey Mordov. ASSR, Saransk, 1948, p. 114-23.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

IVANTSEV, N. V.

IVANTSEV, N. V. "Surgical treatment of cancer in a general survey of modern theory of malignant growths", Sbornik nauch. trudov vrachey Mordov. ASSR, Saransk, 1948, p. 131-45.

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VANTOV, M.; IVANTSEV, V.

Study of the peripheral capillaries of vascular diseases of the brain. Zhur. nevr. i psikh 61 no.8:1187-1192 '61. (MIRA 15:3)

1. Kafedra nervnykh bolezney i neyrokhirurgii (zav. - prof. Tr. Zapryanov) Meditsinskogo instituta imeni I.P. Pavlova, Plovdiv, Bolgariya.

(CEREBROVASCULAR DISEASES)
(CAPILLARIES)

IVANTSOV, A.I.; CHAVKIN, Kh.M.; VETCHINKIN, N.I.

Gear teeth measuring stand PMZ-5. Stan. i instr. 24 no.6:25-28 Je '53. (MLRA 6:7)

(Gearing) (Gauges)

IVANTSOV, A.I.

Double profile measurement of the circular pitch of gears. Izm. tekh.no.5:33-36 S-O '55. (MLRA 9:1)
(Gearing--Measurement)

IVANTSOV, A. I.

Evaluating the precision of clock-type indicators. Izm. tekh. no.3: 15-18 My-Je '57. (MLRA 10:8)

(Measuring instruments)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619310007-4"

IVANTSOV, A. Y.

A. Y. Ivantsov, "The Application of the Accuracy Theory of Mechanisms in Metrology."

paper presented at the 2nd All-Union Conf. on Fundamental Problems in the Theory of Machines and Mechanisms, Moscow, USSR, 24-28 March 1958.

PHASE I BOOK EXPLOITATION SOV/4106

Moscow. Moskovskoye vyssheye tekhnicheskoye uchilishche

Vzaimozamenyayemost' i tekhnika izmereniy v mashinostroyenii (Interchangeability and Measurement Techniques in Machinery Manufacture) Moscow, Mashgiz, 1959. 232 p. (Series: Mezhvuzovskiy sbornik, No. 1) Errata slip inserted. 3,000 copies printed.

Additional Sponsoring Agency: Moscow. Stankoinstrumental'nyy institut imeni I. V. Stalina.

Editorial Board: A. I. Yakushev, Doctor of Technical Sciences, Professor; Ye. I. Volodin, Candidate of Technical Sciences; and N. N. Ganchev, Candidate of Technical Sciences; Eds.: Yu. N. Lyandon, Candidate of Technical Sciences; N. A. Dokunina, Candidate of Technical Sciences; and A. I. Yakushev, Doctor of Technical Sciences, Professor; Managing Ed. for Literature on Machine and Instrument Construction: N. V. Pokrovskiy, Engineer; Ed. of Publishing House: G. F. Kochetova; Tech. Ed.: A. F. Uvarova.

PURPOSE: This collection of articles is intended for scientific workers and technical personnel studying problems of interchangeability and technical measurements in machinery manufacture.

COVERAGE: The book deals with trends in the development of basic problems of interchangeability. Existing measuring equipment in the USSR and other countries is discussed. Some design and utilization problems in the use of conventional and automatic measuring devices are outlined. Emphasis is given to methods and equipment for feedback and mechanized control and control of the geometry and surface roughness of parts. No personalities are mentioned. References accompany several of the articles.

AVAILABLE: Library of Congress

11

Ivanisov, A.I.

PHASE I BOOK EXPLOITATION SOV/4585

Vsesoyuznoye soveshchaniye po osnovnym problemam teorii mashin i mekhanizmov. 2d, Moscow, 1958

Teoriya mashin avtomaticheskogo deystviya i teoriya tochnosti v mashinostroyenii i priborostroyenii; sbornik statey (The Theory of Automatic Machines and the Theory of Precision in the Manufacture of Machinery and Instruments; Collection of Articles) Moscow, Mashgiz, 1960. 218 p. (Series: Its: Trudy [tom 3]) Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Institut mashinovedeniya Akademii nauk SSSR.

Editorial Board: I.I. Artobolevskiy, Academician, (Resp. Ed.), S.I. Artobolevskiy, Professor, Doctor of Technical Sciences, G.G. Baranov, Professor, Doctor of Technical Sciences, A.P. Besonov, Candidate of Technical Sciences, V.A. Gavrilenko, Professor, Doctor of Technical Sciences, A. Ye. Kobrinskiy, Doctor of Technical Sciences, N.I. Levitskiy, Professor, Doctor of Technical Sciences, and L.N. Reshetov, Professor, Doctor of Technical Sciences. Ed.: V.V. Bystritskaya, Engineer; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on General Technical and Transport Machine Building (Mashgiz): A.P. Kozlov, Engineer.

PURPOSE: This collection of articles is intended for engineers and designers, workers at scientific-research institutes, and instructors at schools of higher technical education.

COVERAGE: The collection contains discussions of precision problems in the manufacture of machines and instruments, the general theory of automatic production machines, and calculation methods for automatic production machines with programmed control. The conference at which these reports were presented was called by the Institute of the Science of Machines of the Academy of Sciences, USSR, and was held in Moscow March 24-28, 1958. The transactions of this conference have been published in 4 volumes of which the present collection is the third. No personalities are mentioned. There are no references, all Soviet.

4.	Kuzmenkov, V.I., M.V. Medvid', and V.P. Preys [Candidates of Technical Sciences]. Problems in the Theory of Automatic Loading of Machine Tools and Presses by Piecework Intermediate Products	42
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16.	Livshits, G.A. [Candidate of Technical Sciences]. Defects in Turbine Reduction Gears as Exciters of Vibration and Noise in Turbogear Assemblies	197
17.	Sergeyev, V.I. [Candidate of Technical Sciences]. On the Design of Automatized Bridge Computers	208

AVAILABLE: Library of Congress (TJ1185.V5 . 1958)

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AC/wrc/mas
12-30-60

IVANOV, A.G.; IVANTSOV, A.I.; ROSTOVYKH, A. Ya.

"Measurement of angles in the manufacture of machinery" by V.IA. Eidinov. Reviewed by A.G. Ivanov, A.I. Ivantsov, A. IA. Rostovykh. Izm. tekh. no.5:56-57 My '64 (MIRA 17:7)

IVANTSOV, A.I.; ASANOV, V.V.

Maximum deviations of the readings of measuring instruments. Izm. tekh. no.11:11-13 N '64. (MIRA 18:3)

IVANTSOV, D., inzh.

A surgeon for machinery. Izobr.i rats. no.3:22 Mr '62.
(MIRA 15:2)

1. Upravleniye mekhanizirovannykh rabot stroytresta No.110, g. Kamyshin.
(Kamyshin--Building machinery--Technological innovations)

IVANTSOV, D.F., inzh.

Mechanized harvesting of medicinal plants. Trakt. i sel'khozmash. no.1:27-29 Ja '58. (MIRA 11:4)
(Botany, Medical)
(Harvesting machinery)

IVANTSOV, D.F., inzh.

Renovation of grain combines for harvesting poppies. Mekh. sil'. hosp. 9 no. 7:19-20 Jl '58. (MIRA 11:8)

(Poppy)

(Combines (Agricultural machinery))

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619310007-4"

IVANTSOV, D.F.

Transportation of an 18 m. reinforced concrete truss. Prom.stroi. 40 no.8:30-31 '62. (MIRA 15:11)

1. Trest No.110 Volgogradskogo soveta narodnogo khozyaystva.
(Trusses--Transportation)

IVANTSOV, D.F., inzh.

Pale semitrailer for transporting reinforced concrete trusses.
Stroi. i dor. mash. 8 no.1:17 Ja '63. (MIRA 18:5)

CA 7

Crystallization of cast iron with spheroidal graphite. K. P. Bunin and G. I. Ivantsov (I. V. Stalin Metallurgical Inst., Dnepropetrovsk). *Doklady Akad. Nauk S.S.S.R.* 72, 1051-3(1950).—Cast irons contg. 3.5 to 3.7% C and 2.2 to 2.5% Si modified with Elektron metal were quenched in the process of solidification. Microscopic study of the specimens showed that the graphite grows mainly in the eutectic temp. range, only a negligible amt. of graphite crystd. at higher temps. Nonmetallic inclusions may influence nucleation. In the presence of Mg the graphite particles were spherical even in the early stages of growth; they tend to be flakes in the absence of Mg. The graphite spheres were surrounded by a layer of austenite during their growth and were not in contact with the liquid. The process of graphite-sphere growth is controlled not by the fast process of C diffusion but by the slow process of self-diffusion of the Fe atoms to increase the size of the hole available for the sphere. The self-diffusion of iron is speeded by increasing the Si content, which decreases the activation energy. If too little Si is present, growth of the graphite stops and a white iron is obtained. On slow cooling in the solid state this white iron is converted to gray iron with spheroidal graphite. A. G. Guy

1951

E - Foundry

IVANTSOV, G.I.

Met. Rev

1952

110-E. Spheroidal Graphite in Cast Iron. *Metal Progress*, v. 60, Dec. 1951, p. 156-158. (Condensed from "Crystallization of Cast Iron With Nodular Graphite," K. P. Bunin and G. I. Ivantsov. Previously abstracted from *Doklady Akademii Nauk SSSR*. See item 442-E, 1950. (E25, CI)

IVANTSOV, G. I.
PHASE I

BOOK

Author: IVANTSOV, G. I., BUNIN, K. P, and MALINOCHKA, Ia. N.
Full Title: STRUCTURE OF CAST IRON
Transliterated Title: Struktura chuguna
Publishing Data
Originating Agency: None
Publishing House: State Publishing House of Scientific-Technical Mach. Bldg. Literature (Mashgiz).
Date: 1952. Kiev. No. pp.: 161 No. copies: 5,000
Editorial Staff
Editor: Prof. V. N. Gridnev
Ed.-in-Chief: V. K. Serdiuk, Engineer
Tech. Ed.: None
Appraiser: Prof. K. E. Vashchenko

Text Data
Coverage: The work treats the basic principles of cast iron metallography. Processes of crystallization and recrystallization in austenite, graphite, and carbide and structural changes are considered in terms of molecular physics. 97 diagrams.
Purpose: The work is written for metallographic engineers and foundry personnel.
Asst. Prof. Ia. V. Grechnoi and N. M. Danil'chenko. Engineers: Dolinskoi, L. A., Kozyrev, I. F., Krishtal, M. A., Taran, Iu. N., and Ian, N. M.
Facilities:
No. Russian and Slavic References: 46
Available: Library of Congress.

IVANTSOV, G.I.

3

Formation of graphite stringers in malleable iron. K. P. Bunin, N. M. Danil'chenko, and G. I. Ivantsov. *Liteinoe Proizvodstvo* 1952, No. 6, 21-3.—Graphite stringers lowering the phys. properties of malleable iron were shown to be independent of its chem. compn. Comparing the fracture and structure of iron before and after malleabilization permitted the establishment of a connection between the tendency towards forming graphitic stringers and micropores produced by shrinkage. Crystn. of the last portions of the liquid phase having eutectic compn. occurs among dendrites, and, therefore, in very thin layers, the feeding of which may be insufficient. This produces microscopic shrinkage cavities. On annealing, graphite formation begins in these cavities and is rapid since no Fe atoms need be removed. It results in stringlike inclusions of graphite, the shape of which corresponds to these shrinkage cavities. J. D. Gat

(1)

Graphite inclusions in conventional and modified irons. G. I. Ivantsov, *Liteinoe Proizvodstvo* 1952, No. 8, 20-32.—Fractographic study of iron obtained from a blast-furnace salamander, conventional foundry irons, and Mg-modified nodular irons. Fracture always follows the central portion of a graphite plate appearing coal black in oblique illumination and well reflecting the light under vertical illumination. Graphitic inclusions chip off very easily and nodular graphite is never retained. J. D. Gat

IVANTSOV, G. I.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Bunin, K.P Ivantsov, G.I. Malinochka, Ya. N.	"Structure of Cast Iron"	Dnepropetrovsk Metallurgical Institute

SO: W-30554, 7 July 1954

AUTHOR: Ivantsov, G.I., Candidate of Technical Sciences. 129-4-2/1.

TITLE: Mechanism of the influence of low temperature annealing of white iron on the quantity of graphitisation centres during subsequent annealing. (Mekhanizm vliyaniya nizkotemperaturnoy vyderzhki belogo chuguna na kolichestvo tsentrov grafitizatsii pri posleduyushchem otzhige.)

PERIODICAL: "Metallovedenie i Obrabotka Metallov" (Metallurgy and Metal Treatment) 1957, No. 4, pp. 9 - 16 (U.S.S.R.)

ABSTRACT: Applying an equal casting and annealing technology for an equal composition of iron acceleration of the graphitisation is achieved either by preliminary hardening of the components or by holding of such components for four to six hours at 300 to 350 °C. It was experimentally proved that a rapid acceleration of the graphitisation of iron and steel after hardening is due to the formation of hardening cracks which serve as locations of formation of graphite nuclei during subsequent annealing. The effect of low temperature holding is mostly attributed to the phenomenon of braking of graphite formation by hydrogen at elevated temperatures, which is eliminated during the holding time. Zubarev (7) assumes that an increase in the number of the graphitisation centres is explained by the disintegration of cementite in local volumes under the influence of tensile stresses caused by separating out of hydrogen and formation of methane. In earlier work

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the author of this paper and colleagues of his (8) explained the influence of low temperature holding from the point of view of the general theory of phase transformations, taking into consideration the re-distribution of the thermal defects in the crystal lattices of the solid phases of white iron. Micro-photos on p. 10 represent the structure of malleable iron in the as cast state and after graphitisation annealing for telescopically cast specimens with diameters varying between 5 and 30 mm changing by steps of 5 mm with the chemical composition: 2.62% C, 0.8% Si, 0.32% Mn, 0.07% Cr, 0.08% S, 0.11% P, 0.01% Al. Details are given of the heat treatment and the results are summarised in Table 1, p.10. A change in diameter from 30 to 15 mm brings about an increase in the graphite inclusions per 1 mm^2 which is directly proportional to the branching of the austenite dendrites, i.e. to the surface of division between the ledeburite cementite and the austenite. From the step of 10 mm dia. onwards the increase in the number of graphite inclusions is considerably larger than the increase in the extent of branching. Thus, a definite relation was established between the branching of the austenite dendrites and the number of

graphite inclusions for the steps between 30 and 15 mm dia. but this relation does not seem to exist for steps of smaller diameters. It was found that the lower the preliminary holding temperature the more effective it will prove; the optimum being holding at 320 °C for four hours. For each preliminary holding temperature there is a specific frequency of germination of the graphite during subsequent annealing and this will be the lower the higher the holding temperature; isothermal annealing at a given temperature for a sufficiently long time liquidates the effect of subsequent annealing at a lower temperature and this was experimentally confirmed for temperatures above 450 °C. Continuous heating of components at 250 to 420 °C at a rate of about 2 °C/min and lower is equivalent to a low temperature isothermal holding at the optimum temperature; the heating speed above 420 °C has practically no influence on the frequency of germination of the graphite in the first stage. Introduction into the iron melt of hundredths of a percent of aluminium prior to casting increases by many times the effectiveness of the influence of low temperature holding

Mechanism of the influence of low temperature annealing of white iron on the quantity of graphitisation centres during subsequent annealing. (Cont.) 129-4-2/17

under otherwise equal conditions. If the assumptions on the role of micro-cavities in graphite germination made in an earlier paper (8) are correct, such holding should bring about an increase of the frequency of germination of the graphite even in cases in which micro-cavities are produced specially, for instance, by hardening or deformation; this assumption was verified on specimens of equal composition but taken from the central, densest parts of the casting. The authors prove that low temperature holding does produce conditions for growing in micro-cavities of graphite nuclei which are capable of developing during subsequent high temperature annealing. The problem of germination of graphite in the case of holding at above eutectoidal temperatures after rapid heating of cast and hardened white irons is considered mainly on the basis of experimental data of Owen and Wilcock (16), Frenkel (17), Fast and Verrijp (18). It was found that after rapid heating of hardened cast iron to temperatures corresponding to the first stage, about a quarter of the largest cracks will become graphitisation centres, whilst three-quarters are not being utilised for that purpose. Existence of large graphite inclusions together with numerous small ones indicates that the formation

Card 4/6

Mechanism of the influence of low temperature annealing of white iron on the quantity of graphitisation centres during subsequent annealing. (Cont.) 129-4-2/17

of the graphite nuclei takes place at various times. Since hardening of the iron ensures the formation of numerous stable nuclei, which are not linked with the boundaries of cementite-austenite division, the process of liquidation of ledeburite cementite during subsequent annealing will be very much simplified. For determining the germination of graphite at temperatures below the eutectoidal in the as cast and in hardened irons, experiments were carried out with cast specimens which were held at 320 °C for 1 000, 2 000, 3 000 and 5 000 hours respectively. It was found that the lower the holding temperature, the smaller are the defects which can be occupied by graphite but the longer has to be the holding time. Low temperature isothermal holding can be substituted by slow heating of the components at 300 to 400 °C since such heating ensures the necessary formation of the graphite nuclei on the basis of the micro-defects.

Card 5/6

There are 4 tables, one set of 4 micro-photographs and 19 references, of which 16 are Slavic..

IVANTSOV, G. I.

137-1958-3-5028

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 82 (USSR)

AUTHORS: Zlatoustovskiy, D. M., Litovchenko, N. V., Ivantsov, G. I.

TITLE: Improving the Durability of the Rolls in the Finishing Stands of a Rod-rolling Mill (Povysheniye stoykosti valkov otdelochnykh kletey provolochnogo stana)

PERIODICAL: Sb. nauchn. tr. Magnitogorskiy gornometallurg. in-t, 1957, Nr 11, pp 296-312

ABSTRACT: The employment of rotating calibrating rollers increases the durability of reduction rollers in a finishing stand; this in turn reduces the amount of passes from one caliber (C) to another and increases the productivity of the mill even further. The calibrating rollers center the ellipse along a vertical sense, while the reduction in the C's of the rollers corrects the cross-sectional symmetry of the ellipse with respect to its major axes and improves its durability during deformation in the finishing C. The employment of calibrating rollers reduces the amount of sources responsible for surface flaws of the rolled rod stock.

B. Ye.

Card 1/1

137-58-4-7602

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 177 (USSR)

AUTHOR: Ivantsov, G. I.

TITLE: A New Phenomenon in the Graphitizing of White Iron in a Silicon-containing Hydrogen Atmosphere (Novoye yavleniye pri grafitizatsii belogo chuguna v atmosfere vodoroda, soderzhashchey kremniy)

PERIODICAL: Sb. nauchn. tr. Magnitogorskiy gornometallurg. in-t, 1957, Nr 11, pp 313-324

ABSTRACT: When specimens of white iron of the following percent composition: C 2.9, Si 1.35, Mn 0.29, previously polished. were held in a stagnant atmosphere of H_2, either pure or with added Si, at a temperature of appx. 1000°C, a new phenomenon was encountered: the polished surface acquired a microscopic relief after holding times (2 hours) inadequate to cause deep graphitization, but when Si was added to the atmosphere this microtopography took on the nature of eminences (E), the formation of which occurs considerably faster (15 min). When held long enough (1.5 hour), the appearance of a new, dark phase, which is then spontaneously replaced by cementite inclusions, is noted. The size and number

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137-58-4-7602

A New Phenomenon in the Graphitizing of White Iron (cont.)

of the E depend upon the rate of heating. An increase in temperature is accompanied by a diminution in the number of E and simultaneous increase in size. Chemical analysis shows an 0.1 percent rise in Si content in the surface layer of the specimens. Grinding off of an insignificant amount reveals the center of the E to be occupied by graphite surrounded by a metal matrix. On annealing in N_2, all other conditions remaining the same, graphitization proceeds in the normal manner, and no E are found. The author suggests the following explanation of the phenomenon observed: Holding in pure H_2 induces decarburization of the surface without graphitization, whereas, if Si is present in the gaseous phase, the H_2 will, as before, prevent graphitization at the surface, but the Si, saturating a thin surface layer, creates conditions favorable to the initiation of cavities containing graphite, and this leads to the formation of surface E.

P. S.

1. Cast iron--Graphitization

Card 2/2

IVANTSOV, G.I.

Thermal stability of converter iron from large molds cast in sand and metal molds. Izv. vys. ucheb. zav.; chern. met. 6 no. 9:177-180 '63. (MIRA 16:11)

1. Magnitogorskiy gorno-metallurgicheskiy institut.

GALEMIN, I.M.; IVANTSOV, G.I.

Investigating the cast iron from a combined lining of blast furnace hearths and hearth bottoms. Izv. vys. ucheb. zav.; chern. met. 6 no.12:28-34 '63. (MIRA 17:1)

1. Magnitorgorskiy gorno-metallurgicheskiy institut.

LEVIN, Ya.N.; IVANTSOV, G.I.

Determining the relation of interphase energies in the system copper - iron. Fiz. met. i metalloved. 16 no.4:535-539 O '63. (MIRA 16:12)

1. Magnitogorskiy gorno-metallurgicheskiy institut.

SHCHULEPNIKOVA, A.G.; IVANTSOV, G.I.

Resistance to abrasive wear of alloyed austenite and of a ferrite-carbide mixture of equal hardness prepared from it. Metalloved. i term. obr. met. no.7:43-44 Jl '64. (MIRA 17:11)

1. Magnitogorskiy gorno-metallurgicheskiy institut.

[illegible], [illegible],

"On the Theory of Nonstationary Heat Flow in a Rectangular Parallelepipedon and Prism," Zhurnal Tekhnicheskoi Fiziki, 1938, Vol 8, pp 948-959.

Reported affiliations: Central Scientific-Research of Ferrous Metallurgy. Central Aero-Hydrodynamics Institute
Field of of Work : Generally heat flow in solids; ferrous metallurgy.

B

Heat Balance of the Bessemer Process on Straight Oxygen. G. P. Ivantsov. 9 pages. Discussion. From *Kislorod*, v. 2, no. 1, 1945, p. 30-35. Henry Brutcher, Altadena, Calif. (Translation No. 1936.)

The following are calculated: scrap additions required as function of carbon and silicon to be eliminated, oxygen consumed per unit weight of steel, and steel yield for the scrap process; amount of ore in charge as function of carbon and silicon contents to be eliminated, consumption of oxygen per unit weight of steel, and yield of steel for the ore process; and blowing of pig iron low in elements to be eliminated, with use of oxygen.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

C A

1

Heat accumulation in the lining of periodically operating furnaces. O. P. Ivantsov. *Trudy Ural. Ind. Inst. im. S. M. Kirova* No. 20, 61-97(1946).—The most reliable values of coeff. of heat cond., heat capacity, temp. cond., and thermoinertia of various refractory and insulating materials are presented graphically. The name "coeff. of thermoinertia" is suggested for the expression $b = \sqrt{\lambda c \gamma}$, where λ is the coeff. of heat cond., c is the heat capacity per unit wt., and γ is the vol. wt. The heat exchange taking place in the walls of periodically operating furnaces is analyzed. Their heat absorption is considered to be the sum of 2 components, one stationary and the other pulsating. The latter dets. the heat losses. The graphic analysis method for calcg. the heating process of the furnace walls is explained and illustrated. 20 references.

M. Hoch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

IVANZOV, G. P.

PA 4T76

USSR/Mathematics applied 1945
Thermodynamics

"Solution of the Problem of Cooling a Semi-space Filled with a Substance Whose Properties Depend on Temperature," G. P. Ivanzov, 2 pp

"CR Acad Sci" Vol XLIV, No 3

Study of cases where conductivity and specific heat (C) are functions of temperature

4T76

IVANTZOV, G. P. PA 4T90

USSR/Physics, Applied 1945
Refrigeration

"Solution of the Problem of Cooling a Semi-space Filled by Matter at n Critical Points Whose Intervals are Characterized by Different Physical Properties," G. P. Ivantzov, 2 pp

"CR Acad Sci" Vol XLIX, No 4

Generalization of Stephan and Frank's solution for hardening of a soil bed of unlimited thickness, to the cooling of a semi-space filled with matter at n critical points, corresponding to n critical temperatures, the passage of which is followed by the absorption or loss of heat

4T90

BTR

9091 Nagrev Metalla: Teoriia i Metody Rascheta. (Heating of Metals: Theory and Methods of Calculation.) G. P. Ivan... tsov. 191 pages. 1948. Government Scientific-Technical Publishing House for Literature on Ferrous and Nonferrous Metallurgy, Sverdlovsk and Moscow, U.S.S.R. (TN672 I-Iu)
Mathematical bases of the theory of heating metals in furnaces under different conditions of heat exchange. Original and classical methods for calculating time of heating. Formulas, tables, and graphs are presented, and their application illustrated by numerous numerical examples.

IVANTSOV, G. P.

USSR/Metals - Alloys, Crystallization Nov 51

"Supercooling by Diffusion During Crystallization of a Binary Alloy," G. P. Ivantsov, Cen Sci Res Inst of Ferrous Metallurgy

"Dok Ak Nauk SSSR" Vol LXXXI, No 2, pp 179-182

Establishes that during crystn, realized by conduction of heat through solid phase, layer of supercooled melt is formed near front of crystn due to diffusion process which occurs in zone adjacent to front of crystn. Under proper conditions crystals may be formed in supercooled layer, factor aiding formation of equiaxial cryst structure. Submitted by Acad I. P. Bardin.

199T97

IVANTSOV, G. P. PA 234T52

USSR/Metallurgy - Crystallization Apr 52

"On the Growth of the Spherical and Needle-Shaped crystals in a Binary Alloy," G. P. Ivantsov, Cen Sci Res Inst of Ferrous Metallurgy

"Dok Ak Nauk SSSR" Vol 83, No 4, pp 573-576

Using assumptions and definitions of previous works ("Dok Ak Nauk SSSR" Vol 81, No 2, 1951 and Vol 58, No 4, 1947), author analyzes crystn process in supercooled melt of binary alloy, developing formulas for describing phenomena which occur in melt and trajectory of figurative point whose motion represents crystal growth. Submitted by Acad I. P. Bardin 6 Feb 52.

234T52

IVANTSOV, G. P.

USSR/Engineering - Heat, Processes Aug 52

"Heating Lump Materials Under Conditions of Counter flow," G. P. Ivantsov and B. Ya. Lyubov, Cen Sci Res Inst of Ferrous Metallurgy

"DAN SSSR" Vol 85, No 5, pp 993-995

Develops soln of problem posed as follows: load of balls of given dia and initial temp moves at steady rate down shaft of given height and cross-section; gas of definite initial temp is blown upward through shaft; it is required to find temp field in single ball as function of time, and

239T62

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variation in gas temp along shaft. Equations obtained permit to calc heat exchange in blast furnaces with greater precision then could be done by approx method previously developed by B. I. Kitayev. Submitted by Acad I. P. Bardin 19 Jun 52

239T62

IVANTSOV, G. P.

235T106

USSR/Physics - Heat Conduction 11 Sep 52

"Initial Heating of Immobile Layer of Spheres by a Current of Hot Gas," G. P. Ivantsov, B. Ya. Lyubov, Cen Sci Res Inst of Ferrous Metallurgy

"Dok Ak Nauk SSSR" Vol 86, No 2, pp 293-296

Discusses soln of the problem concerning the initial heating of the layer of lumpy material by means of a current of hot gases, taking into account the temp drop with respect to thickness of the piece. Sets up the eqs involving radius of spheres, initial temp, temp of gas, velocity of

235T06

the gas, cross section for the gases, etc. Solves by means of Laplace transformations. Submitted by Acad I. P. Bardin 8 Jul 52.

235T106

IVANTSOV, G.P.
p.3,4,5,6.)

AUTHOR: See Table of Contents.

TITLE: Thermotechnics of Ingots and Furnaces (Teplotekhnika slitka i pechey) Collected Works (Sbornik trudov)

PUB. DATA: Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo literatury po chernoy i tsvetnoy metallurgii, Moscow 1953, 2 (5) edition, 330 pages, 2,500 copies.

ORIG. AGENCY: Ministerstvo chernoy metallurgii SSSR. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Institut stali.

EDITORS: Ivantsov, G.P.; Editor of the Publishing House: ~~Gordon, L.M.~~; Tech.Ed.: Attopovich, M.K.

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Thermotechnics of Ingots and Furnaces (Cont.)

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Thermotechnics of Ingots and Furnaces (Cont.)

Ivantsov, G.P., Afanas'yeva, K.I., and Romanova, A.V. Theory of the Hydraulic Integrator and its Application to the Calculation of Crystallization. 105-198

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619310007-4"

Thermotechnics of Ingots and Furnaces (Cont.)

II. Thermotechnics of Metallurgical Furnaces

Card 7/9

PODGORODNIKOV, Iosif Samuilovich, kandidat tekhnicheskikh nauk; IVANTSOV, G.P., kandidat tekhnicheskikh nauk, redaktor; BASHKIROV, L.B., redaktor izdatel'stva; ZHOROV, D.M., tekhnicheskiy redaktor

[Russian stoves "Teplushka-2" and "Teplushka-4"] Russkie pechi "Teplushka-2" i "Teplushka-4." Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1956. 157 p. (MLRA 9:10)
(Stoves)

IVANTSOV, G.P., kandidat tekhnicheskikh nauk; SOBAKIN, M.P., kandidat tekhnicheskikh nauk; CHISTYAKOV, V.S., inzhener.

Best thermal conditions for smelting using oxygen. Sbor.trud. TSNIICHM no.13:153-170 '56. (MLRA 9:11)

(Zaporozh'ye--Smelting)
(Oxygen--Industrial applications)

IVANTSOV, G.P., kandidat tekhnicheskikh nauk; SOBAKIN, M.P., kandidat tekhnicheskikh nauk.

Hydraulic model for investigating various methods of injecting oxygen to the flame jet in open-hearth gas furnaces. Sbor.trud. TSNIICHM no.13:207-228 '56. (MLRA 9:11)

(Open-hearth furnaces--Models)
(Oxygen--Industrial applications)
(Flame)

D258/D307

AUTHOR: Ivantsov, G. P.

TITLE: Thermal and diffusion processes during crystal growth

SOURCE: Rost kristallov; doklady na Pervom soveshchanii po rostu kristallov, 1956 g. Moscow, Izd-vo AN SSSR, 1957, 98-109

TEXT: The author considers mathematically the following cases: (1) growth of a spherical crystal at constant surface (2) growth of a spherical crystal at constant rate;

growth. Considera...

Card 1/2

Thermal and diffusion... S/564/57/000/000/007/029
D258/D307

isothermal, face centers being at the highest temperature; equations are given for the increases of temperature at face centers and at apices, and for their difference. Increased rate of crystallization ...

Card 2/2

Ivantsev, G. P.

137-1958-2-2487

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 42 (USSR)

AUTHOR: Ivantsov, G.P.

TITLE: The Thermal Aspect of Crystallization in an Ingot (Nekotoryye voprosy teplovoy storony protsessa kristallizatsii slitka)

PERIODICAL: V sb.: Fiz.-khim osnovy proiz-va stali. Moscow, AN SSSR, 1957, pp 749-764. Diskus. pp 781-791

ABSTRACT: Methods of mathematical physics were employed to analyze the crystallization process in a pure substance and in a binary alloy. A study was made of the thermal conditions of growth of individual crystals of elementary shape (polyhedral and acicular), which comprised the actual crystallization front. It was found that in the initial stage the growth of a crystal of a pure substance was limited not by the removal of heat but by the speed of the kineto-molecular processes occurring on the crystallization front. A solution is given for the problem of the growth of one spherical crystal at a constant linear speed in a supercooled melt. A study

137-1958-2-2487

The Thermal Aspect of Crystallization in an Ingot

The temperature field of an acicular crystal is given. Conjointly with the study made of crystallization in a binary alloy, the diffusion and heat-transfer equations were also solved. A study was made of the crystallization of a crust consisting of a binary alloy and formed on a flat wall, the temperature of the external surface remaining constant. The locus line of the nominal melting points is shown in a phase diagram.
Bibliography: 8 references V.G.

1. Ingots--Crystallization 2. Ingots--Thermal properties
3. Crystallization--Temperature effects

Card 2/2

137-58-6-11761

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 79 (USSR)

AUTHOR: Ivantsov, G.P.

TITLE: The Aero-hydrodynamics of the Oxygen Converter Process (Aerogidrodinamika kislorodnogo konverternogo protsessa)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii, 1957, Vol 18, pp 751-762

ABSTRACT: A study of the structure of an air stream blown into water from below shows that the intense braking effect results in a sharp deceleration in its speed, and its cross section increases ("broad-flame regime"). At $\geq$ 3.5 atm excess pressure, the flame is distinctly conical in shape. The blowing of steam and ammonia (assimilable gases) into water resulted in both instances in an intensive circulation of the bath. When the bath is top blown, the flow of oxygen agitates and attracts particles from the surrounding gas, and this is accompanied by the formation of eddies and a drop in velocities when the rate of motion of the stream is constant. An eddy-causing lance with a central aperture was developed to reduce splashing of metal and slag when the bath is top-blown with oxygen.

Card 1/2

137-58-6-11761

The Aero-hydrodynamics of the Oxygen Converter Process

As the stream of oxygen meets the bath it forms a reaction zone, the temperature of which is ~2200-2500°C. The heat flow to which the water-cooled metal lance is subject within this interval is $1.83 \cdot 10^6$ to $2.90 \cdot 10^6$ kcal/m^2·hr, the bulk of which comes from radiation from the reaction zone. Consequently, there is a gas phase in front of the lance, and the lance may therefore be immersed beneath the slag-metal interface. For a metal lance to function properly under these conditions it has to be cooled intensively and uniformly, a fact that is confirmed by investigations made with models. The velocity of the cooling water must not be <8 m/sec, and the oxygen pressure in front of the lance must be ≥5 atm excess pressure. In the top-blown process, the major cause of agitation of the bath is the motion of the gases. Under these conditions the slag undergoes not so much a mechanical as a thermochemical effect. However, this situation is usually not considered in model tests. Intensive bubbling results in a high degree of uniformity in the concentrations of impurities and in temperatures throughout the bath. Further investigations should be directed toward perfecting the lances used for oxygen and combined blows, toward perfecting conditions of blow, and toward studying the aero-hydrodynamic and thermophysical processes occurring in a converter under oxygen blast. Bibliography: 12 references.

B.G.

1. Steel--Production 2. Furnaces--Chemical processes 3 Gas flow--Analysis
Card 2/2 4. Furnaces--Heat transfer

AFANAS'YEV, S.G.; KOSTENETSKIY, O.N.; SHUMOV, M.M.; IVANOV, Ye.V.; PAVLOV, A.I.; GARGER, K.S.; KRIVULYA, G.D.; UMNOV, V.D.; UL'YANOV, D.P.; MAMCHITS, K.A.; PETROV, S.A.; SOROKIN, A.A.; FRIDMAN, Ye.L.; EPSHTEYN, Z.D.; IVANTSOV, G.P.; NETESIN, A.Ye.

Reports (brief annotations). Biul. TSNIICHM no.18/19:106-107 '57. (MIRA 11:4)

1. Zavod im. Petrovskogo (for Kostenetskiy). 2. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Shumov, Epshteyn, Ivantsov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut ogneuporov (for Ivanov). 4. Stal'proyekt (for Pavlov). 5. Metallurgicheskiy zavod im. Dzerzhinskogo (for Garger, Krivulya, Umnov, Ul'yanov, Mamchits, Petrov, Sorokin). 6. Dnepropetrovskiy filial Giprometa (for Fridman). 7. TSentral'nyy institut informatsii chernoy metallurgii (for Netesin)

(Bessemer process)

AUTHOR: Gulyayev, B.B. SOV/24-58-4-37/39

TITLE: Conference on Crystallisation of Metals (Soveshchaniye po kristallizatsii metallov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 153 - 155 (USSR)

ABSTRACT: This conference was held at the Institut mashinovedeniya AN SSSR (Institute of Mechanical Engineering of the Ac.Sc. USSR) on June 28-31, 1958. About 400 people participated and the participants included specialists in the fields of foundry, metallurgy, crystallography, physics, welding, heat, physical chemistry, mathematical physics and other related subjects. In addition to Soviet participants, foreign visitors included Professor D. Czikl (East Germany) and N.I. Chvorinov (Czechoslovakia). This conference on crystallisation of metals was the fourth conference relating to the general problem of the theory of foundry processes.

Crystallisation of Steel and Alloys with Special Properties. The following papers were read: V.I. Lapitskiy, N.I. Stupar', K.P. Rudachev, V.L. Olekseyenko, A.I. Marinov - "Certain Methods of Reducing Non-uniformities of Large Castings (up to 20 t) made of Rimming Steel"; V.K. Novitskiy, A.B. Mikul'chik and V.V. Blinov - "Influence of Internal Crystallisers on the Structure and Properties of Steel Ingots"; N.I. Chvorinov (Czechoslovakia) - "On the Crystallisation of Steel"; A.P. Pronov - "Crystallisation of Continuously Cast Ingot and Influence on it of the Properties of

Card6/10 Liquid Steel"; L.I. Morozenskiy and O.D. Zigel' - "Influence of Movement of the Metal in the Liquid Core on the Crystallisation of Steel Ingots and Castings"; N.N. Guglin, A.A. Novikova and B.B. Gulyayev - "Crystallisation and Mechanical Properties of Steels at Elevated Temperatures"; V.Ye. Neymark - "Influence of Inoculation on the Deformation of the Crust and the Speed of Solidification of Ingots"; G.P. Ivantsov "Thermal Stresses and Deformation in the Crust of a Crystallising Ingot"; V.G. Gruzin and P.I. Yampol'skiy dealt with problems of formation of the primary structure of structural steel and the influence on it of the temperature of pouring.

The features of crystallisation of castings made of alloys with special properties and of austenitic steels were dealt with in the following papers: I.I. Gorbunov - "Influence of Inoculation on the Structure and on the Physico-mechanical Properties of High-alloy Steels"; F.F. Khimushin, F.V. Aksenov, N.P. Lazhko and N.Ya. Rodina - "Occurrence of Non-uniformities in High-temperature alloys During Crystallisation and Heat

Card7/10 Treatment" and "Experimental Investigation of the Process of Crystallisation of Cast Blades Made of Refractory Alloys"; A.M. Yuferov considered the process of recrystallisation of steel.

AUTHOR: Gulyayev, B.B. SOV/24-58-4-37/39

TITLE: Conference on Crystallisation of Metals (Soveshchaniye po kristallizatsii metallov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 153 - 155 (USSR)

ABSTRACT: This conference was held at the Institut mashinovedeniya AN SSSR (Institute of Mechanical Engineering of the Ac.Sc USSR) on June 28-31, 1958. About 400 people participated and the participants included specialists in the fields of foundry, metallurgy, crystallography, physics, welding, heat, physical chemistry, mathematical physics and other related subjects. In addition to Soviet participants, foreign visitors included Professor D. Czikl (East Germany and N.I. Chvorinov (Czechoslovakia). This conference on crystallisation of metals was the fourth conference relating to the general problem of the theory of foundry processes.

General Problems of Crystallisation of Metals

Member of the Ac.Sc. Belorussian SSR N.N. Sirota, in his paper "On the Mechanism of the Process of Crystallisation", proposed a general physico-mathematical theory on germination and the growth of crystals and described its application to problems of crystallisation of metals.

Corresponding Member of the Ac.Sc. Ukrainian SSR K.P. Bunin and Yu.N. Taran, in their paper "Eutectic Crystallisation of Grey Irons", considered the features of formation of graphite separations in eutectic alloys from the point of view of the general theory of crystallisation of iron.

B.Ya. Lyubov, in his paper "Calculation of the Speed of Solidification of Metals in Large Volumes", proposed a synthesis of the molecular-kinetic and of the thermal theories of crystallisation of metallic castings.

A.G. Spasskiy, in the paper "Fundamental Factors Influencing the Structure of Castings" and M.V. Mal'tsev in the paper "Methods of Improving the Quality of Cast Metal" described results of their investigations of crystallisation of castings from various alloys and considered methods of controlling such processes.

I.L. Mirkin dealt with the influence of fluctuations in the concentration on the formation of crystallisation nuclei and formation of crystals in complex alloys.

G.F. Ivantsov gave a review of the present concepts on germination and the growth of crystals. O.N. Magnitskiy, A.A. Demidova and B.B. Gulyayev considered the influence of the speed of crystallisation and the composition of the alloys on the quantitative characteristics of the structure and the mechanical properties of castings of the systems iron-carbon and aluminium-silicon. D.S. Kamenetskaya, E.F. Kakhmanova and Ye.Z. Spektor dealt with the results of investigation of the kinetics of crystallisation of iron and its alloys. G.F. Balandin proposed a mathematical theory of formation of the structure of castings and applied it for elucidating the features of crystallisation of iron. Ya.V. Grechnyy dealt with the features of crystallisation of binary alloys of various types.

IVANTSOV, G.P.

LUKNITSKIY, V.V. [deceased], doktor tekhn. nauk, prepodavatel'; SOKOLOV, Ye.Ya., doktor tekhn. nauk, prepodavatel'; LEBEDEV, P.D., doktor tekhn. nauk, prepodavatel'; GIMMEL'FARB, M.L., kand. tekhn. nauk, prepodavatel'; LAVROV, N.V., doktor tekhn. nauk, prepodavatel'; IVANTSOV, G.P., kand. tekhn. nauk, prepodavatel'; GOLUBKOV, B.N., kand. tekhn. nauk, prepodavatel'; SHERSTYUK, A.N., kand. tekhn. nauk, prepodavatel'; NIKITIN, S.P., kand. tekhn. nauk, prepodavatel'; CHISTYAKOV, S.F., kand. tekhn. nauk., prepodavatel'; DUDNIKOV, Ye.G., doktor tekhn. nauk, prepodavatel'; BAKLASTOV, A.M., kand. tekhn. nauk, prepodavatel'; VERBA, M.I., kand. tekhn. nauk, prepodavatel'; GERASIMOV, S.G., prof., red.; KAGAN, Ya.A., dots., red.; AYZENSHTAT, I.I., red.; VORONIN, K.P., tekhn. red.; LARIONOV, G.Ye., tekhn. red.

[Heat engineering handbook] Teplotekhnicheskii spravochnik. Moskva, Gos. energ. izd-vo. Vol.2. 1958. 672 p. (MIRA 11:10)
(Heat engineering)

SOV/133-58-7-5/27

AUTHORS: Afanas'yeva, K.I., Engineer and Ivantsov, G.P., Candidate of Technical Sciences

TITLE: Modelling of Casting a Continuous Ingot (Modelirovaniye razlivki nepreryvnogo slitka)

PERIODICAL: Stal', 1958, Nr 7, pp 599 - 604 (USSR)

ABSTRACT: Hydrodynamics of the continuous casting of a slab, 600 x 150 mm, were studied on a model. In designing the model, the following assumptions were made: a) the process of casting is isothermal and the movement of steel in an ingot is forced; b) injected (by the stream of steel) air does not dissolve in the metal; c) the crystallisation front is stationary (its velocity is very small in comparison with the velocity of movement of the liquid metal); d) the surface of the solidified crust is smooth. Water was chosen as the modelling liquid. The choice of dimensions and operating conditions was based on the equality of Reynold's, Weber's and Frud's criteria. The consumption of water corresponded to velocities of withdrawing ingots from 600 to 1200 mm/min. The model was made from plexiglass, scale 0.6 of the natural (Figure 1). The dimensions of the upper part

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of the mould (crystalliser) and in the bottom part were decreased by the thickness of crust which was determined for a mean rate of withdrawing ingot of 1 000 mm/min. The liquid was poured into the model through a funnel (Figure 2) and an intermediate capacity (Figure 3). The water was withdrawn at the bottom of the model. Casting controlled with a stopper and without control as well as open and sunk streams, were tested. The experimental results obtained are shown in graphs and photographs (Figures 4-9). Conclusions: 1) Observations of the movement of streams in models of casting equipment indicated that on casting through a funnel, a rotating movement appears in it. This increases hydraulic resistance of the funnel and, therefore, decreases the coefficient of consumption (throughput) of the liquid. Moreover, as a result of the rotating movement of the liquid, it is directed along the surface towards the narrow faces of the ingot, carrying floating solid particles and slag and thus contaminating the surface of the ingot. Slag and non-metallic inclusions present in the stream are carried into the ingot. 2) On casting through

an intermediate capacity the best results were obtained when the level of the liquid in the intermediate vessel is not lower than 100-120 mm and with a baffle plate on the bottom of the vessel, directing the stream towards the surface (for better separation of non-metallic inclusions). If the level was below 100 - 120 mm, this led to drawing in under the stopper, air bubbles and surface layers of the liquid. An increase in the height of the liquid level in the intermediate vessel helped to float non-metallic inclusions and decreased the spraying of the stream when casting without a stopper. The maintenance of the required level of the liquid and its throughput can be obtained by a suitable choice of the diameter of the feeder and by controlling with the stopper. On increasing the length of the intermediate capacity, the movement of the liquid becomes steadier which facilitates flotation of non-metallic inclusions and decreases the possibility of the latter being drawn into the ingot. 3) The coefficient of through-put of liquid through the casting equipment depends on the state of the stream (decreasing with its rotation) and on the degree of filling with the liquid of the cross-section

of the equipment. 4) On casting with an open-stream, injection of air bubbles into the ingot is unavoidable and the depth of their penetration and their pulsation increases with increasing throughput of the liquid. With decreasing diameter of the feeder, the depth of penetration of air bubbles also increases somewhat, but due to a small height in the fall of the stream, their amount remains approximately the same. 5) Generally known advantages of casting with a sunk-in stream (under the level) in comparison with an open stream, (above the level) consist of the absence of injection of gases (at a liquid level in the casting equipment not lower than 50-80 mm) and a sharp decrease in the possibility of drawing into the ingot pieces of crust from the surface. The depth of penetration of a sunk-in stream into the ingot is 200-300 mm larger than that of the open stream. 6) The depth of penetration of air bubbles and of the stream during casting through 90° bent casting pipes is somewhat larger than when casting through straight ones. 7) The forms of movement of the liquid in the ingot are determined by the nature of the stream falling onto the ingot surface and are characterised

by their instability (particularly when the rate of withdrawing of ingots is in the range of 1 000 - 1 200 mm/min), whereupon one form of movement is periodically replaced by another form. This is valid for both methods of casting with open and sunk-in stream. The periodic nature of the change in the form of movement decreases the non-uniformity of the washing of the crust by the stream of overheated metal and prevents the possibility of a localised melting of the crust but contributes to the formation of non-uniformity of the crust thickness during the crystallisation. Periodically appearing, intense ascending streams moving along narrow faces of the ingot were observed. These contribute to the carrying out of non-metallic inclusions (particularly during casting with a sunk-in stream). In both cases of casting (open and sunk-in stream) the most intense movement was observed in the upper part of the ingot at a depth up to 500 - 1 000 mm, where melting of the ingot crust with a stream of overheated metal is possible. Therefore, for the profile and casting equipment investigated it is advantageous to use the mould (crystalliser, of a length

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Modelling of Casting a Continuous Ingot SOV/133-58-7-5/27

not less than 1 000 mm.
There are 9 figures and 5 Soviet references.

ASSOCIATION: TsNIIChM

Card 6/6

1. Steel--Casting 2. Steel (Liquid)--Hydrodynamic characteristics 3. Steel castings--Test results 4. Water--Applications

IVANISOV G. P.

[redacted]

18(0) PHASE I BOOK EXPLOITATION SOV/2316

Akademiya nauk SSSR. Institut nauchnoy i tekhnicheskoy informatsii

Metallurgiya SSSR, 1917-1957; [t.] II (Metallurgy in the USSR, 1917 - 1957; Vol 2) Moscow, Metallurgizdat, 1959. 813 p. Errata slip inserted. 3,000 copies printed.

Ed. (Title page): I. P. Bardin, Academician; Ed. (Inside book): G. V. Popova; Tech. Ed.: P. G. Islent'yeva.

PURPOSE: This book is intended for metallurgists.

COVERAGE: The articles in this collection present historical data on the achievements of Soviet metallurgy, both ferrous and nonferrous, during the period 1917-1957. Advances in theory and practical application are thoroughly discussed. Many of the articles describe the present status of individual branches of metallurgy and give an idea of what may be expected in the future. Advances made in other countries are also discussed. The articles are accompanied by a large number of references. For further coverage, see Table of Contents.

Card 1/15

Kidin, I. N., Professor, Doctor of Technical Sciences. (Moscow Institute of Steel) Use of High Frequency Currents in Physical Metallurgy 216

The author discusses the following: types of phase transformations occurring during rapid heating; the magnetic theory of the kinetics of induction heating; interconnection between original structure, steel composition, and the kinetics of heating; structure of austenite formed during induction heating; transformation of austenite into martensite and tempering after high-frequency hardening; ways of improving the technology of induction heat treatment; regimes of induction hardening; and application of induction heating in carburizing.

Gulyayev, A. P., Professor, Doctor of Technical Sciences. (Moscow Evening Institute of Machine Design) Heat Treatment and Thermochemical Treatment of Steel 239

After giving a classification of the types of heat-treating processes, the author discusses the thermodynamics, mechanism, and kinetics of phase changes, as well as the formation, decomposition, and transformation of austenite. The concluding section deals with diffusion processes.

Goloeman, Zh. M., Engineer. (Stal'proyekt) Heating and Heat-treating Furnaces in USSR Ferrous Metallurgy 272

This is a brief historical review of successive developments in the theory and design of various types of heating and reheating furnaces from czarist times up to 1957.

Ivantsov, G. P., Candidate of Technical Sciences. (TsNIIChM) Theory of Fuel-fired Furnaces 304

The article presents a review of developments in the theory and design of fuel-fired furnaces (mainly open-hearth) from 1905 to 1957, emphasizing the need for refining the theory on the basis of model testing.

Inkashevich-Dubanova, Yu. T., Doctor of Technical Sciences. (Institute of Metallurgy imeni A. A. Baykov, USSR Academy of Sciences) Investigation of Nonmetallic Inclusions 324

Card 7/15

PHASE I BOOK EXPLOITATION SOV/4344

Soveshchaniye po teorii liteynykh protsessov, 4th

Kristallizatsiya metallov; trudy soveshchaniya (Crystallization of Metals; Transactions of the Fourth Conference on the Theory of Casting Processes) Moscow, Izd-vo AN SSSR, 1960. 325 p. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: B. B. Gulyayev, Doctor of Technical Sciences, Professor; Ed. of Publishing House: V. S. Rzheznikov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for metallurgists and scientific workers. It may also be useful to technical personnel at foundries.

COVERAGE: The book contains the transactions of the Fourth Conference (1958) on the Theory of Casting Processes. [The previous 3 conferences dealt with hydrodynamics of molten metals (1955), solidification of metals (1956), and shrinkage processes in castings (1957)]. General problems in the crystal-
lization of metals, including the crystallization of constructional steels,
alloy steels with special properties, cast iron, and of nonferrous alloys, are
discussed. Recognition is given to D. K. Chernov and N. T. Gudtsov and their
students, B. B. Gulyayev and A. G. Spasskiy, for their contributions to the
understanding of the basic problems involved in the theory of crystallization
of ferrous and nonferrous metals and alloys. Academician A. V. Shubnikov is
also mentioned in connection with his work on the planning of research on
crystal formation. References accompany several of the articles.

Ivantsov, G.P

PODGORODNIKOV, Iosif Samuilovich, kand.tekhn.nauk; IVANTSOV, G.P., kand.tekhn.nauk, red.; MIRONOV, A.V., red.izd-va; PYRKINA, N.F., tekhn.red.

[Stoves for apartments and homes; "Russian stoves," "Dutch stoves," "Swedish stoves," and kitchen stoves] Bytovye pechi; "teplushki," tipa "gollandki," "shvedki" i kukhonnyi ochag. Izd.3, perer. i dop. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1960. 220 p. (MIRA 14:4)
(Stoves, Earthenware)